



VARILITE

Evolution PSV™

Introduction

The purpose of this case study is to demonstrate the performance and effectiveness of a *VARILITE* wheelchair cushion.

Case History:

Rehab professionals name & credentials: Trudie Read OTR/L

Client's name (pseudonym): Gene

Facility: Provail, Seattle WA.

PROVAIL provides supported living and instructional services to 90 adults with severe disabilities living in 25 separate community-based residential settings. Each setting is a single-family type house or apartment shared by 3-4 people. The organization is one of Washington State's largest providers of services to children and adults with disabilities.

Age: 54

Gender: Male

Pertinent medical history:

- Diagnosis: Cerebral palsy
- 4 x stage II sacral pressure ulcers

Age at onset: Birth

Previous equipment:

- Invacare® Contour U™ custom wheelchair seating system
- Invacare® Action Arrow Storm™ wheelchair

Functional Level:

Gene performs grooming tasks at a modified independent level using assistive devices. He requires moderate assistance with upper body activities of daily living due to decreased range of motion in his shoulders, and maximum assistance with lower body activities of daily living due to limited range of motion in the hips and knees and poor dynamic sitting balance. Gene is dependent for functional transfers due to his inability to stand or perform weight shift. He is independent with wheeled mobility using his "Action" power wheelchair and has fair activity tolerance (2 hours). He currently lives with his wife in an assisted living community and participates in work activities 3x/week for 4 hours at a time.

Objectives/goals:

1. Reduce peak interface pressure to assist in the prevention of further pressure ulcer development.
2. Increase sitting tolerance to good (4 hours) in order to perform work tasks.



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Physical Exam

- Spastic muscle tone
- Posterior pelvic tendency with left obliquity posture
- Limited hip & knee flexion
- Increased tone in hip adductors

Intervention

Pressure mapping was completed utilizing the Force Sensitive Applications (FSA) system, version 3.1.040 (Winnipeg, Manitoba, Canada).

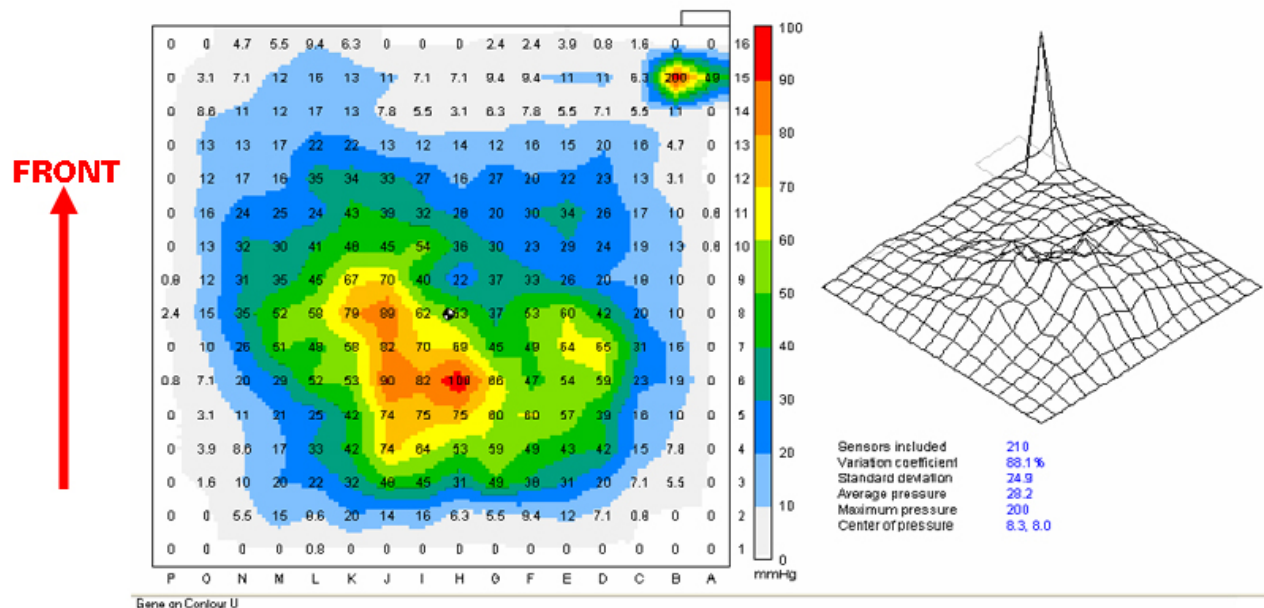
Equipment trialed:

- 18" x 18" VARILITE Evolution PSV wheelchair cushion with incontinence cover and 2" wedge.
- 18" x 18" ROHO® Quadtro Select™

Results:

Goal #1 achieved using VARILITE Evolution PSV cushion. (See attached FSA pressure maps). Peak interface pressure decreased from 100 mmHg to 71 mmHg.

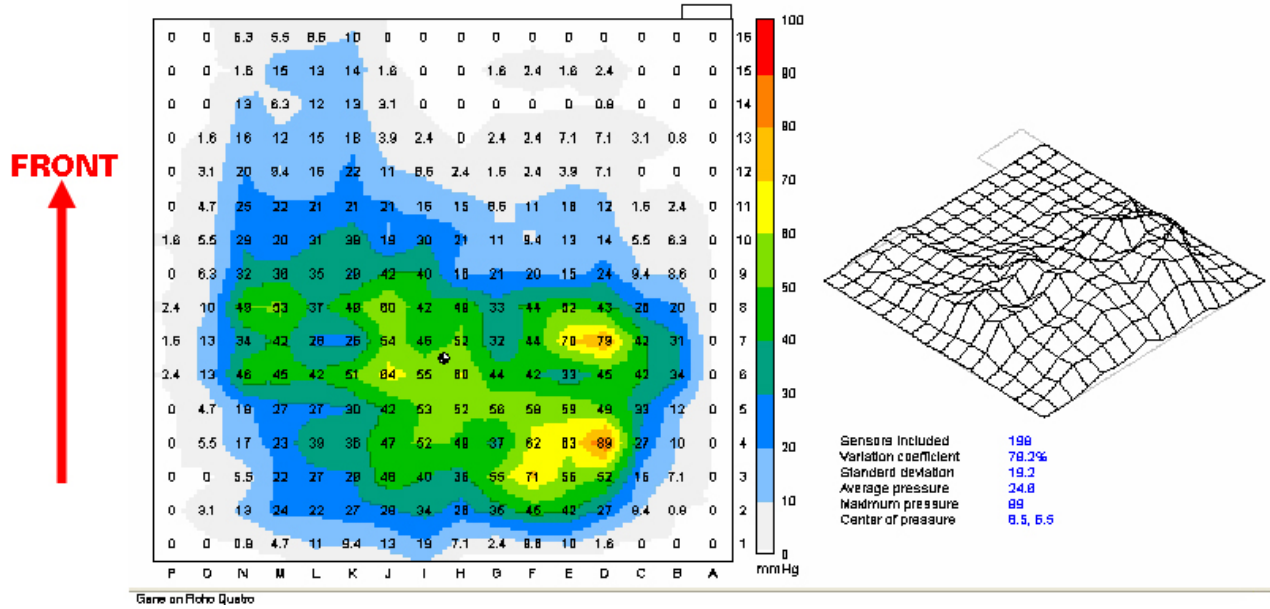
Goal #2 achieved with VARILITE Evolution PSV cushion. Client states that he feels stable and comfortable using the VARILITE Evolution PSV and there were no signs or symptoms of pressure development after 6 hours of use.



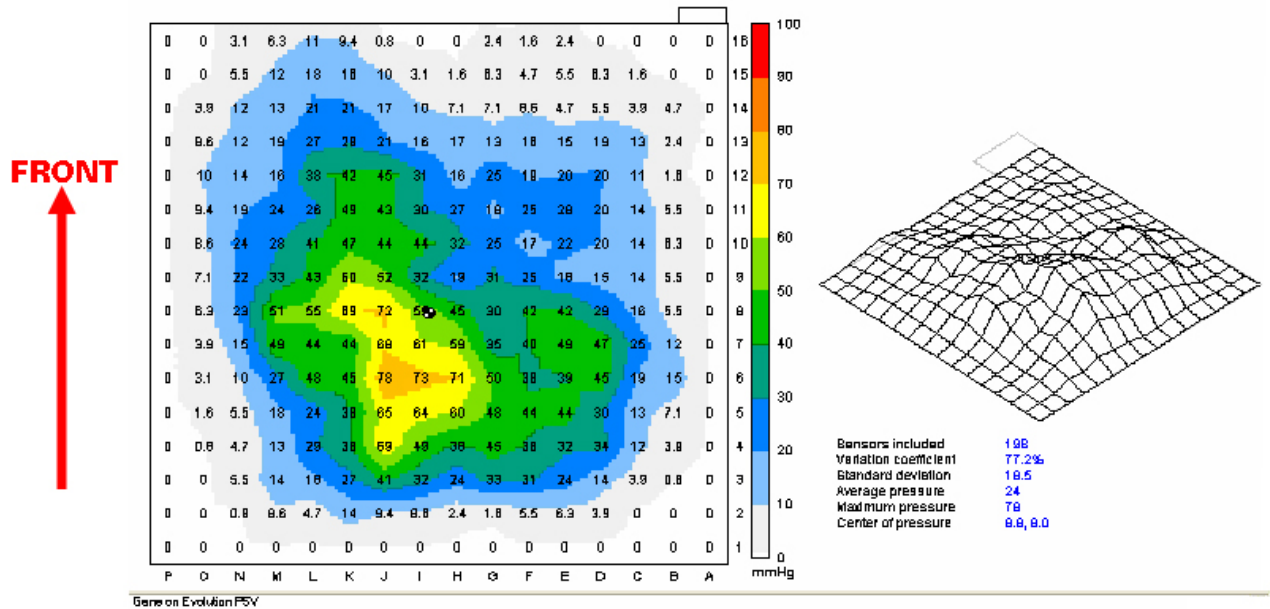
Pressure map of Contour U



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Pressure map of ROHO® Quadro



Pressure map of VARILITE Evolution PSV



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Discussion

This case study demonstrates an appropriate application of the *VARILITE* Evolution PSV wheelchair cushion to redistribute the interface pressure between the wheelchair surface and the user, and to provide stable and comfortable support.

December 14th 2004

About Pressure Mapping

Pressure Mapping can be a valuable tool when comparing how different seating systems perform for a client.

VARILITE cautions, however, that it makes no claim, and no inferences should be made, that the results presented in this case study will be repeated for other clients with the same or similar conditions. *VARILITE* believes that every client is unique and requires an individual assessment.